FIG.1

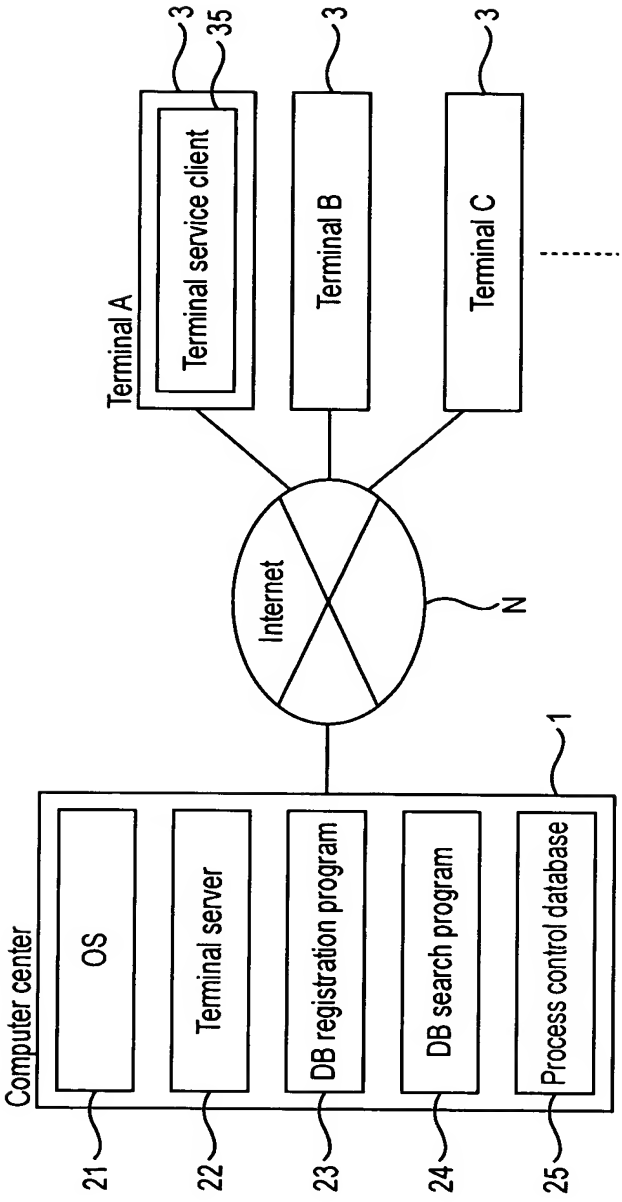

Computer center
OS
Terminal server
DB registration program
DB search program
Process control database
1
21
22
23
24
25
Internet
N
Terminal A
Terminal service client
3
35
Terminal B
3
Terminal C
3

FIG.2

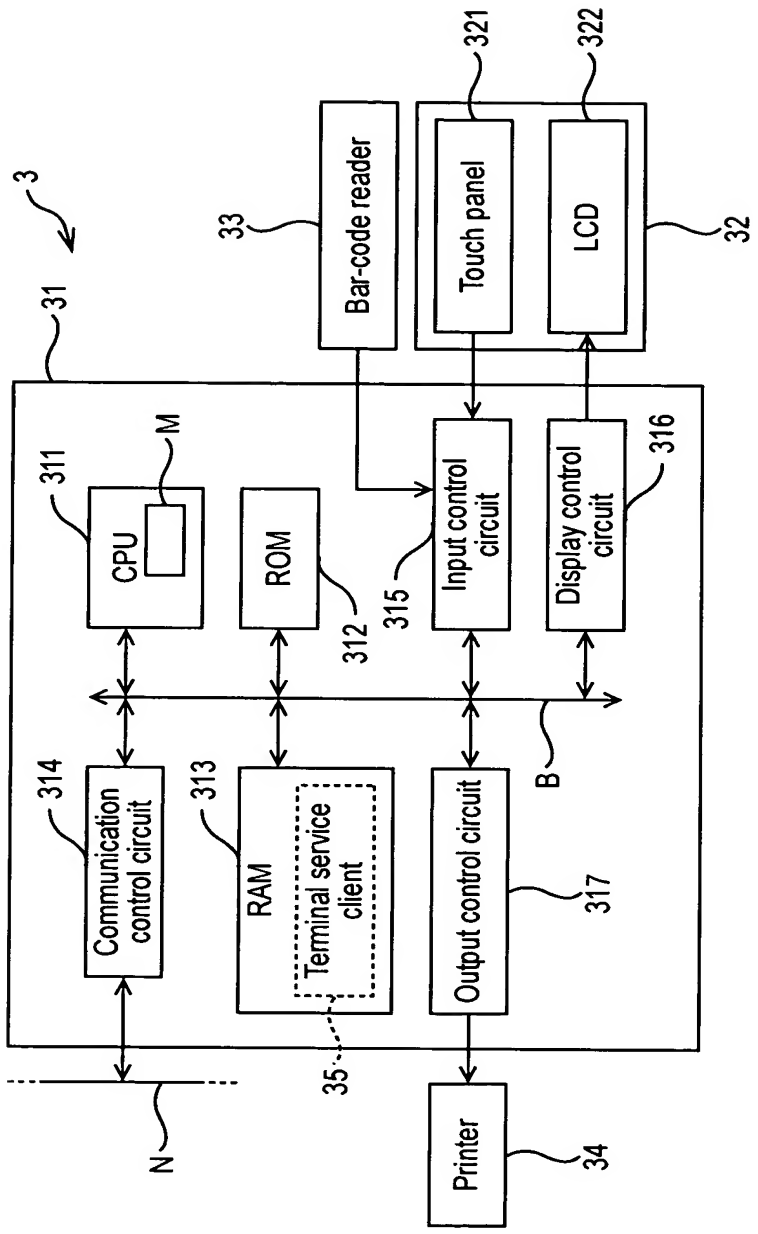

3
31
33
Bar-code reader
321
Touch panel
322
LCD
32
311
CPU
M
ROM
312
315
Input control circuit
Display control circuit
316
314
Communication control circuit
313
RAM
Terminal service client
Output control circuit
317
B
N
35
Printer
34

FIG.3

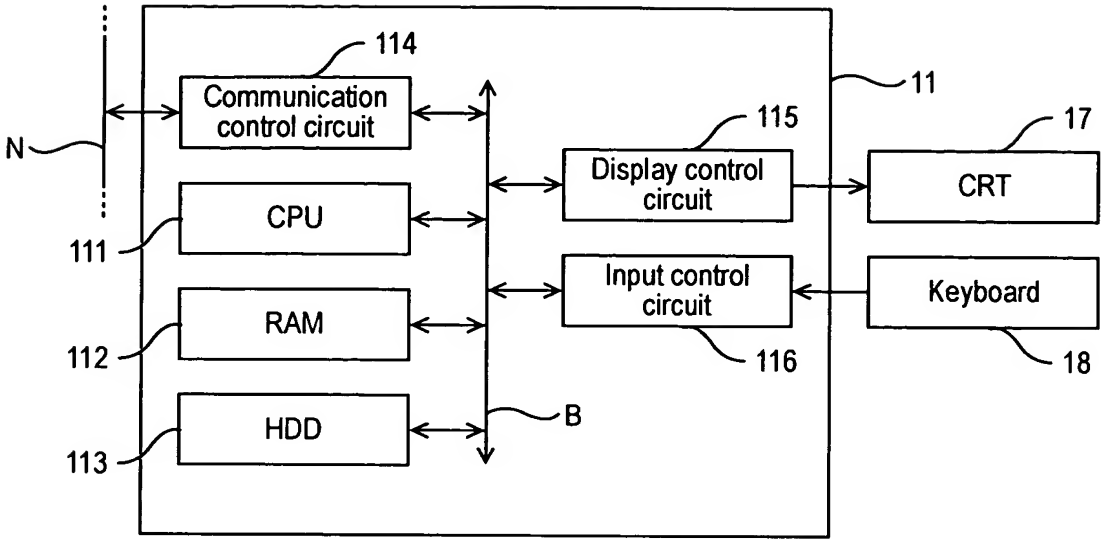

N
114
Communication control circuit
CPU
111
RAM
112
HDD
113
B
11
115
Display control circuit
Input control circuit
116
17
CRT
Keyboard
18

FIG.4

Record number	Product stage name Material stage name	Production start time Service start time	Production stop time Service stop time	ID number Distribution finish information
1	A B	T11 T21	T12 T22	SS1
2	B C	T31 T41	T32 T42	SS2
3	B D	T51 T61	T52 T62	SS3
4	B E	T71 T81	T72 T82	SS4 Finish
5	C F	T91 T101	T92 T102	SS5
6	D G	T111	T112	SS6
N	Km Kn	Tm1 Tn1	Tm2 Tn2	SSz

FIG.5

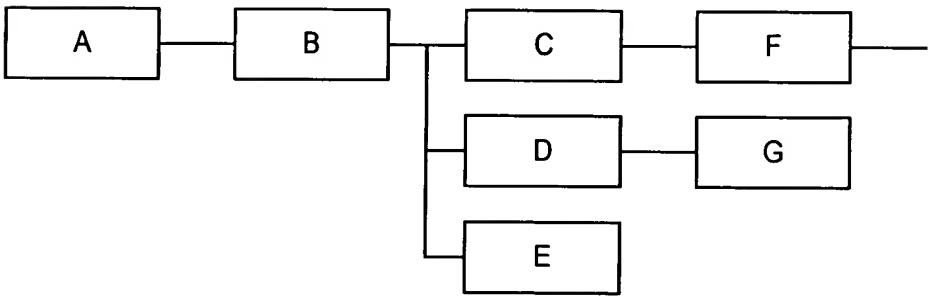


FIG.6

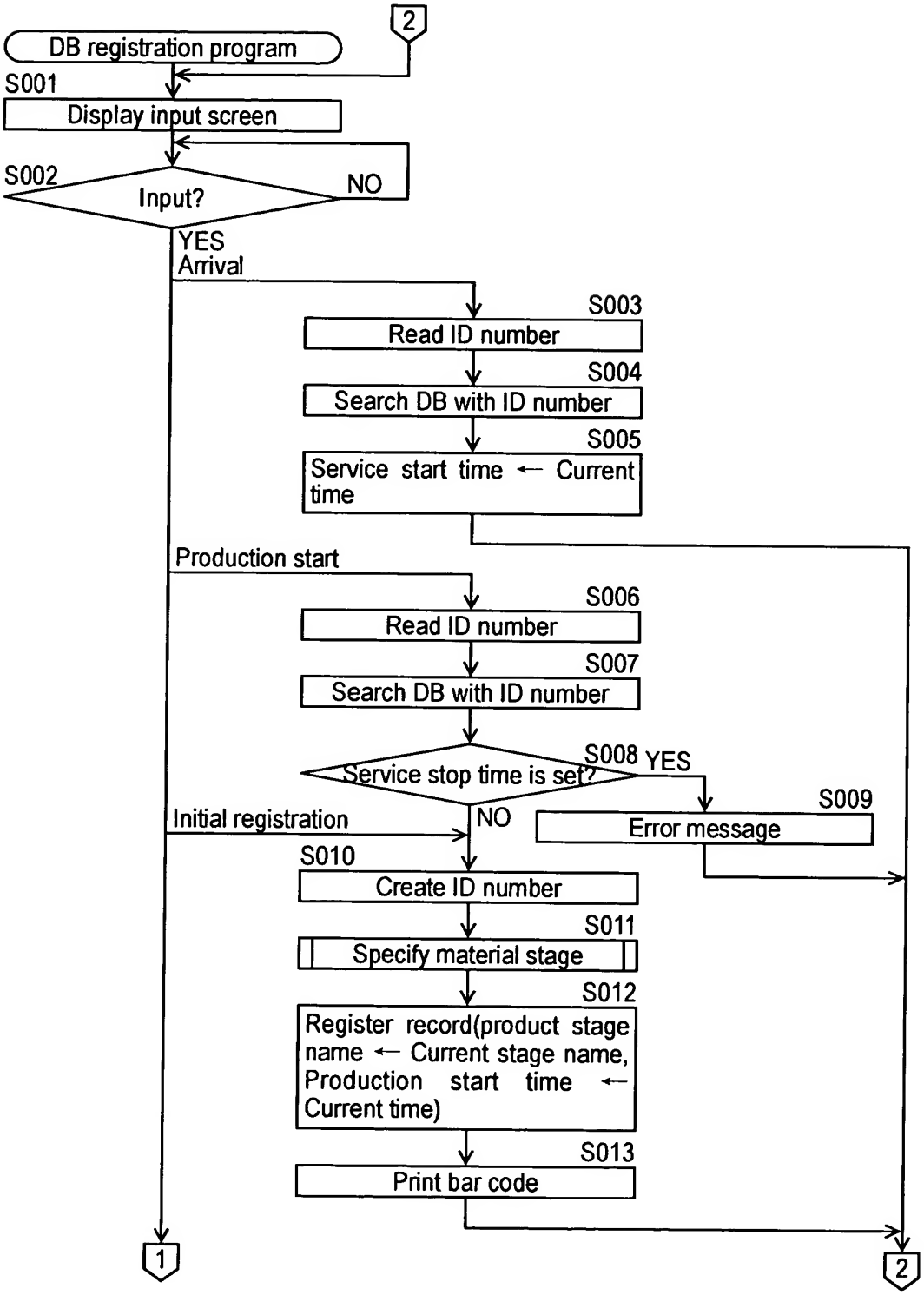

2
DB registration program
S001
Display input screen
S002
Input?
NO
YES
Arrival
S003
Read ID number
S004
Search DB with ID number
S005
Service start time ← Current time
Production start
S006
Read ID number
S007
Search DB with ID number
S008
Service stop time is set?
YES
S009
Error message
Initial registration
NO
S010
Create ID number
S011
Specify material stage
S012
Register record(product stage name ← Current stage name, Production start time ← Current time)
S013
Print bar code
1
2

FIG.7

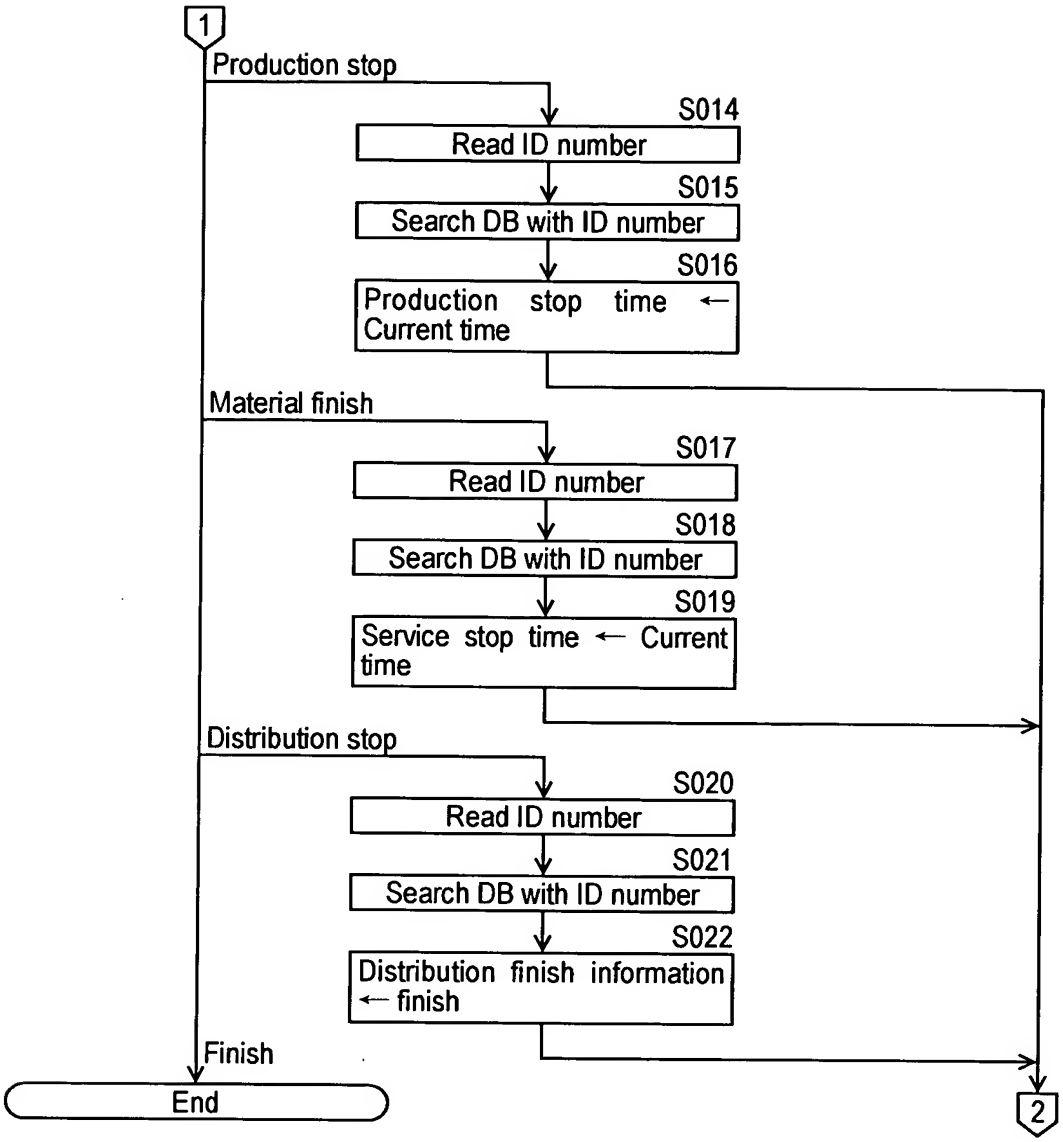

1
Production stop
S014
Read ID number
S015
Search DB with ID number
S016
Production stop time ← Current time
Material finish
S017
Read ID number
S018
Search DB with ID number
S019
Service stop time ← Current time
Distribution stop
S020
Read ID number
S021
Search DB with ID number
S022
Distribution finish information ← finish
Finish
End
2

FIG.8

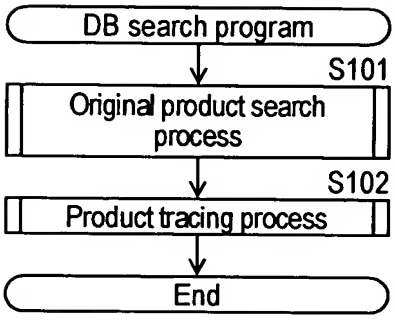

DB search program
S101
Original product search process
S102
Product tracing process
End

FIG.9

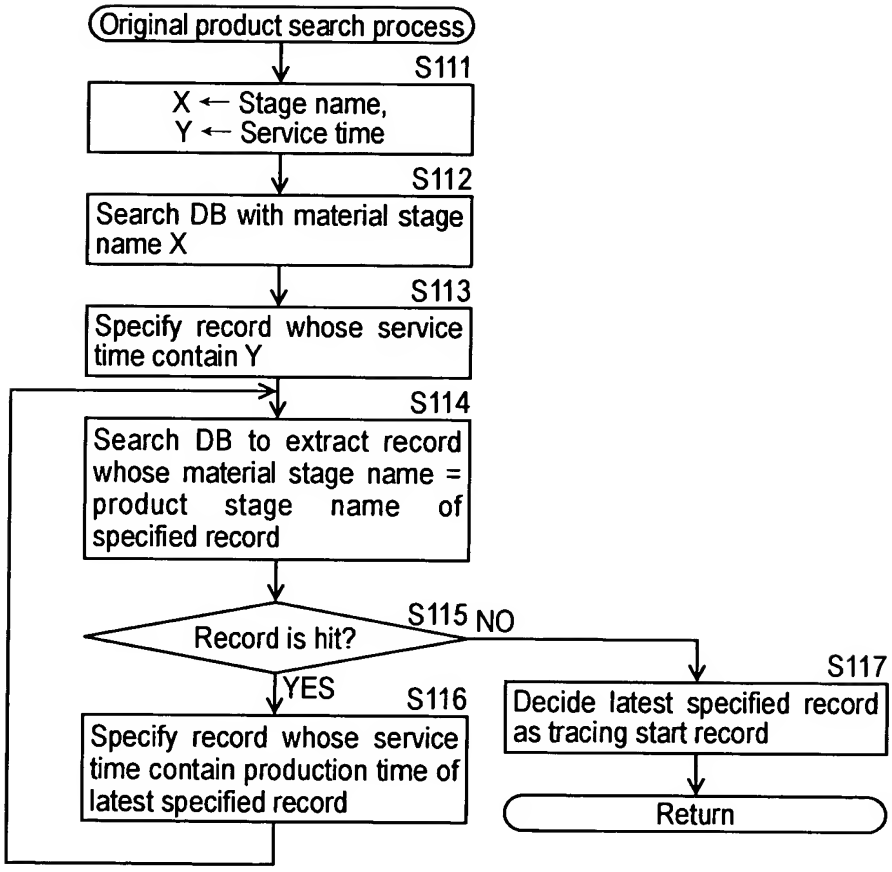

Original product search process
S111
X ← Stage name,
Y ← Service time
S112
Search DB with material stage name X
S113
Specify record whose service time contain Y
S114
Search DB to extract record whose material stage name = product stage name of specified record
S115
Record is hit?
NO
YES
S116
Specify record whose service time contain production time of latest specified record
S117
Decide latest specified record as tracing start record
Return

FIG.10

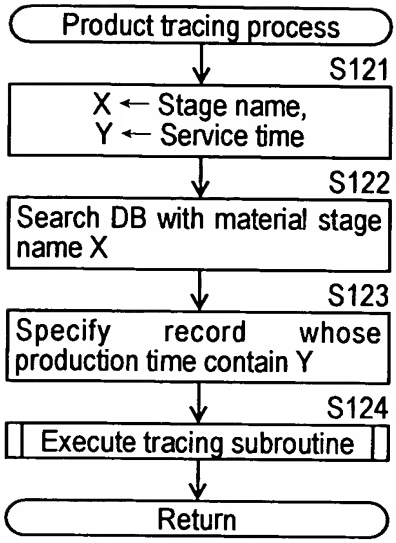

Product tracing process
S121
X ← Stage name,
Y ← Service time
S122
Search DB with material stage name X
S123
Specify record whose production time contain Y
S124
Execute tracing subroutine
Return

FIG.11

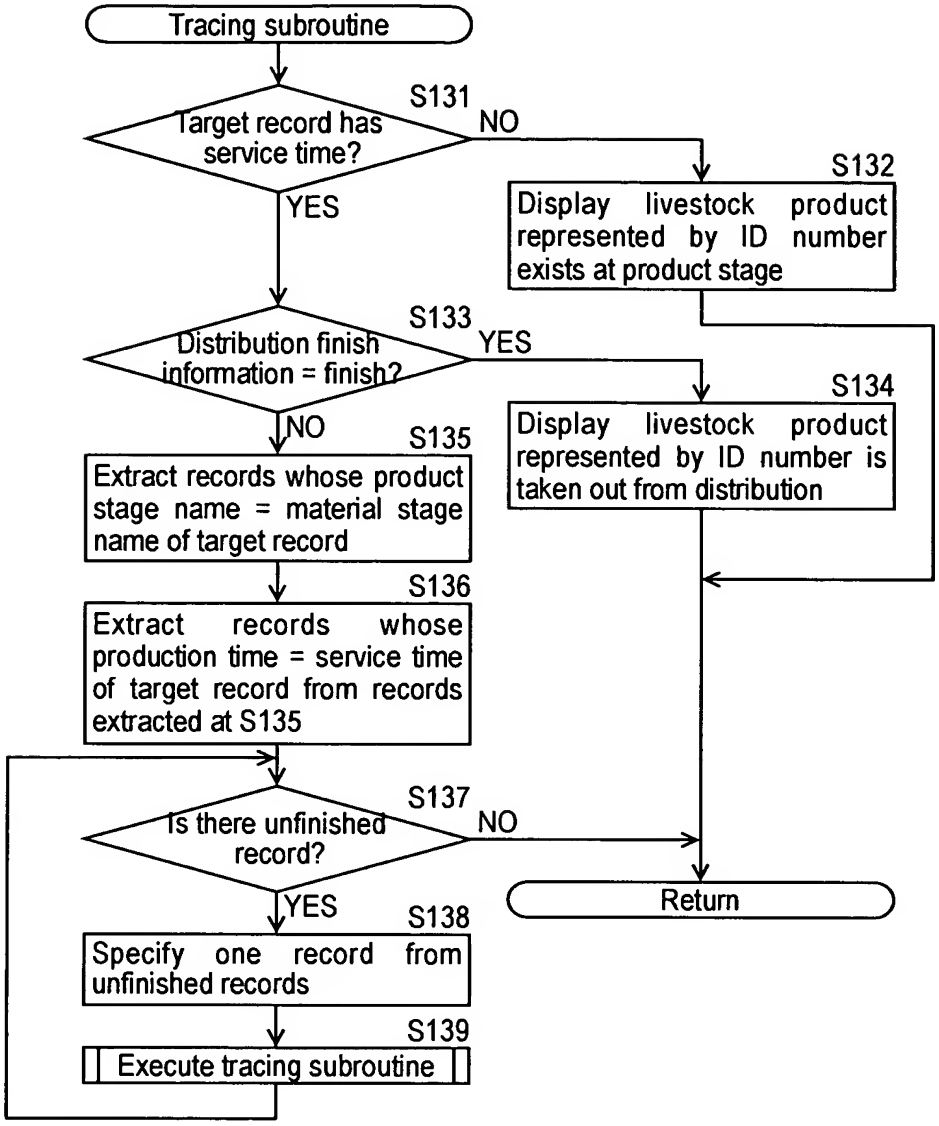
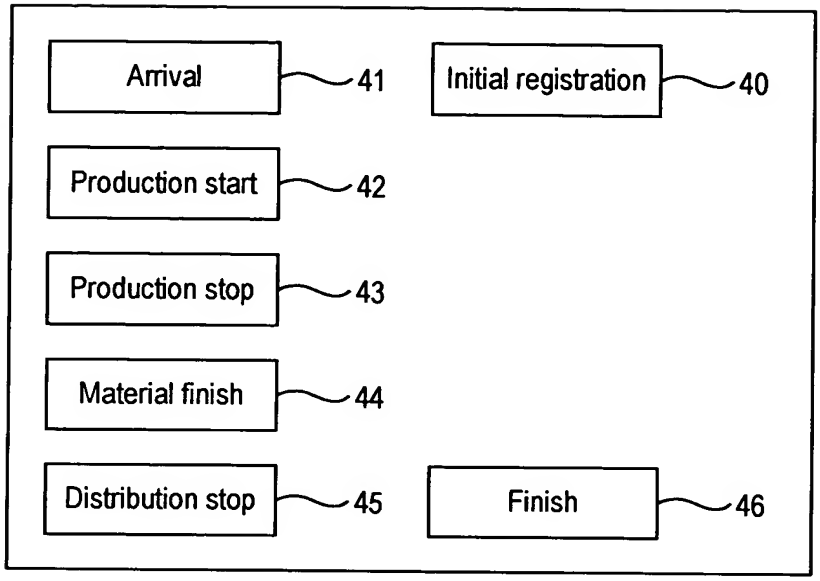

Tracing subroutine
S131
Target record has service time?
NO
YES
S132
Display livestock product represented by ID number exists at product stage
S133
Distribution finish information = finish?
YES
NO
S134
Display livestock product represented by ID number is taken out from distribution
S135
Extract records whose product stage name = material stage name of target record
S136
Extract records whose production time = service time of target record from records extracted at S135
S137
Is there unfinished record?
NO
YES
Return
S138
Specify one record from unfinished records
S139
Execute tracing subroutine

FIG.12


Arrival
41
Initial registration
40
Production start
42
Production stop
43
Material finish
44
Distribution stop
45
Finish
46